REMARKS

Claims 1-8 are pending. Claims 1 and 7 are independent.

Claims 1 & 5 have been objected to for informalities. In response, claims 1 & 5 have been amended as indicated by the Examiner. Accordingly, applicants respectfully request removal of this objection.

Further, the Office rejected claims 1-8 under 35 U.S.C 112, first paragraph, as failing to comply with the written description requirement. In particular, that "Claim 1 recites the limitation "an instruction unit for issuing control signals to said clusters, wherein said instruction unit is connected to each of said clusters via respective control connections each control connection having a pipeline register" in lines 4-6. However, the instant disclosure does not support the concept of each control connection having a pipeline register. See, for example, any of Figures 1-4, which show no pipeline register between the instruction unit and clusters A and B. Consequently, each control connection does not have a pipeline register.

"Applicant cites page 6, lines 25-30 and Figure 3 as providing support for the aforementioned limitation. However, Figure 3, as noted above, shows no pipeline register between the instruction unit and clusters A and B, and page 6, lines 25-30, likewise discloses that one or more pipeline registers are arranged in the control path CC and CD (but not CA or CB)."

In response, independent claims 1 and 5 have been amended to recite the limitations of: "…an instruction unit for issuing control signals to said clusters, wherein said instruction unit is connected to each of said clusters via respective control connections,

one or more pipeline register between said clusters, depending on the distance between respective ones of said plurality of clusters, and

one or more additional pipeline registers arranged in said control connections to a remote cluster of said plurality of clusters, depending on the distance between said instruction unit and said plurality of clusters, so as to pipeline said control connections to said remote cluster."

Thus from amended claim 1 and 5, it is shown that each control connection does not start with a pipeline register but depends on the distance between the instruction unit (IFD) and the clusters (A-D) at the ends of the respective connection, i.e., it is not necessary to arrange any pipeline registers (P) if the distance is short, and one or more additional pipeline registers (P) can be arranged if the distance is long. And, there are always pipeline registers between the connections between respective clusters.

These amendments in claims 1 & 5 are supported by the description (see page 6, lines 25-30 and figure 3): "*Accordingly, the number of pipeline registers P between clusters can be proportional to or dependent on the distance between the respective clusters. Moreover, one or more pipeline register P are arranged in the control path CC*

and CD. Alternatively one or more pipeline registers P are arranged in each of the control paths CC and CD, in order to pipeline the control signals to remote clusters C, D."

Accordingly, one skilled in the art to can determine, based on the distance, whether there is a need of arranging one or more additional pipeline registers in a plurality of control connections to pipeline the control connections to the remote clusters.

For at least the reasons set forth in above, Applicants respectfully submit that the claims are well within the requirements of 35 U.S.C. § 112, ¶ 1. Therefore, Applicants respectfully submit the rejection can no longer be sustained.

Claims 1-3 and 5-7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Batten et al. (Batten) (US 6269437) in view of Nickolls et al. (Nickolls) (US5598408). Claims 4 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Batten and Nickolls as applied to claims 3 and 7 above, and further in view of Pechanek et al. (Pechanek) (US 5659785).

As noted above, independent claims 1 and 5 have been amended recite the limitations of:

"…an instruction unit for issuing control signals to said clusters, wherein said instruction unit is connected to each of said clusters via respective control connections,

one or more pipeline register between said clusters, depending on the distance between respective ones of said plurality of clusters, and

one or more additional pipeline registers arranged in said control connections to a remote cluster of said plurality of clusters, depending on the distance between said instruction unit and said plurality of clusters, so as to pipeline said control connections to said remote cluster."

Applicants can find nothing in Batten or Nickolls, alone or in combination that teaches the above limitations.

Further, the Final Office Action indicates that "Batten does not disclose each control connection having a pipeline register, and one or more additional pipeline registers arranged in said control connections to a remote cluster of said plurality of clusters, depending on the distance between said instruction unit and said plurality of clusters, so as to pipeline said control connections to said remote cluster."

The Final Office Action indicates that Nickolls discloses the above limitations on col. 6, lines 11-14 & col. 60, lines 1-5. Applicants respectfully disagree.

Nickolls teaches a scalable inter-processor messaging system for parallel processor arrays wherein the message delay characteristics of the messaging system do not increase in direct proportion to or at a faster rate than the size of the messaging system, by partitioning a message routing path spatially into fractional segments and

providing pipeline registers at the junctures of the segments for temporarily storing the bits of a transmitted message.

Thus, Nickolls is not analogous art but relates to parallel processing systems and more specifically to the transmission of information through so-called massively-parallel Single Instruction Multiple Data (SIMD) computing machines and not a clustered Instruction Level Parallelism processor... as claimed. Thus, it is not seen how the elements of a massively-parallel Single Instruction Multiple Data (SIMD) computing machines, although similar sounding, can be used in a clustered Instruction Level Parallelism processor.

To simply state that the general idea of using elements of a computer in a processor would be an obvious modification to one skilled in the art begs the question. How? It is much easier said, however, than done. To allege otherwise is merely to reduce the method of claim 1 and 5 to a mere "gist" or "thrust." Such an interpretation disregards the "as a whole" requirement of MPEP 2141.02, and distills the complexities of the actual system of Claims 1 & 5 to an abstract general buzz words, precisely the problem obviated by MPEP 2141.02.

What reference teaches, and moreover provides the motivation to combine with the present method, an actual real world reduction to practice of such an "obvious modification to have also determined the intention of the user"? How is the integration to occur? What

suggests the desirability of such a combination?

Thus, Applicant traverses this rejection, and respectfully requests that the Examiner's position be supported by a reference, as per MPEP 2144.03.

Further, Appellants respectfully submit that the Office Action has used impermissible hindsight to reject claims under 35 U.S.C. § 103(a). The Federal Circuit in *In re Rouffet* stated that virtually all inventions are combinations of old elements. Therefore an Examiner may often find many elements of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation to combine the references and further a motivation to modify the combination to justify a finding of obviousness. Appellants respectfully submit that the Office Action has not met this burden.

The mere fact that the prior art device could be modified so as to produce the claimed device, which in this case even in combination it does not (as noted above), is not a basis for an obviousness rejection unless the prior art suggested the desirability of the modification. See, In re Gordon, 733 F.2d 900, 902 (Fed, Cir. 1984); and In re Laskowski, 871 F.2d 115, 117 (Fed. Cir. 1989). The only suggestion that can be found anywhere for making the modification appears to come from the present patent application itself.

Since Batten or Nickolls, alone or in combination, does not teach all of the limitations of independent claims 1 and 5, as amended, it cannot render the present invention obvious. For at least the above cited reasons, Applicant submits that Claims 1 and 5 are patentable over Batten and Nickolls.

With regard to claims 2-4 and 6-8 these claims depend from one of the independent claims discussed above, which have been shown to be allowable in view of the cited reference. Accordingly, each of claims 2-4 and 6-8 are also allowable by virtue of its dependence from an allowable base claim.

Applicant denies any statement, position or averment stated in the Office Action that is not specifically addressed by the foregoing. Any rejection and/or points of argument not addressed are moot in view of the presented arguments and no arguments are waived and none of the statements and/or assertions made in the Office Action is conceded.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. Entry of this amendment and a Notice of Allowance is respectfully requested.

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